

REMARKS

Applicants respectfully request favorable reconsideration of this application, as amended.

Claims 4-5 have been canceled to reduce the issues. Claim 1 has been amended to incorporate the subject matter of Claims 2 and 3, and dependent Claims 2 and 3 have been canceled accordingly. Claims 6-8 have been added. As a consequence of the foregoing actions, all of which have been taken without prejudice or disclaimer, Claims 1 and 6-8 are pending for further consideration.

Claims 1-3 were rejected under 35 U.S.C. 102(b) as being anticipated by Kurita (US 6,148,687). To the extent that the rejection applies to amended Claim 1 (as incorporating the subject matter of Claims 2 and 3), Applicants respectfully request reconsideration.

Claim 1, as presently amended, recites, inter alia, an impact absorption type steering column apparatus having a column sided upper bracket press-fitted to a vehicle body sided upper bracket that is secured to a vehicle body. The apparatus supports a steering column via a bolt inserted through through-holes formed in the column sided and vehicle body sided upper brackets. Upon a secondary collision, the steering column apparatus absorbs impact energy such that the vehicle body sided upper bracket deforms flexurally as

the steering column moves toward the front of the vehicle. The through-hole in the column sided upper bracket is formed as an elongate hole extending substantially in parallel with an axis of the steering column to the rear of the vehicle from a position of the bolt. The through-hole of the vehicle body sided upper bracket is an elongate hole for tilt adjustment, and the bolt is a tilt position fastening bolt.

In contrast to Applicants' claimed invention, Kurita neither discloses nor suggests a steering column apparatus having a through-hole in a column sided upper bracket formed as an elongate hole extending substantially in parallel with an axis of the steering column to the rear of the vehicle from a position of a bolt. Indeed, the through-hole in the column sided upper bracket in Kurita is inclined relative to an axis of the steering column (See Kurita Col. 2, LL. 20-23).

Upon a secondary collision, energy absorption in the Kurita steering column occurs first when bolt 22 slides along elongate tilt opening 21 to the upper end thereof followed by movement of distance bracket 27 from upper rounded end 28a to lower rounded end 28b of elongate through-hole 28, and secondly when front wall sections 18, 18 and column installation sections 19, 19 of upper bracket

4 are turned forward with respect to the vehicle body around bend sections 20, 20 while lower bracket 2 is deformed (See Kurita Col. 6, Line 60 to Col. 7, Line 22).

Further, the direction of the bending force exerted by bolt 22 due to engagement of tilt opening 21 with bolt 22 differs largely from the direction of force due to engagement of elongate through-hole 28 of column-sided distance bracket 27 with bolt 22 (See attached FIG.7 of US 6,148,687). Therefore, a transition between energy absorption due to the bending force of bolt 22 and energy absorption due to engagement of elongate through-hole 28 with bolt 22 cannot be made smoothly, and it becomes difficult to properly set energy absorption levels for a secondary collision.

In comparison, according to the invention of the present application, the composite direction of the direction of the bending force exerted by bolt 16 and the direction of bolt slide along tilt hole 13 substantially coincides with the direction of bolt slide along the elongated direction of elongate hole E of column sided bracket 15 (See attached FIG. 5 of the present application).

Bending of body sided bracket 14 and sliding of bolt 16 along elongate hole 13 of vehicle body sided bracket 14 occur at the same time, and energy absorption occurs due to

friction of bolt slide along elongate hole E of column sided bracket 15.

According to the invention of the present application, collapsing for energy absorption may transition smoothly from that of bolt slide along elongate hole 13 to that of bending of vehicle body sided bracket 14, because through-hole E of column sided upper bracket 15 is extended substantially in parallel with an axis of the steering column to the rear side of the automotive vehicle from a position of the bolt, as recited in Claim 1.

It will thus be appreciated that Claim 1, at least as presently amended, distinguishes patentably from Kurita. Moreover, the GB '826 publication, which was cited in connection with dependent Claims 4 and 5, does not overcome the above-discussed deficiencies of Kurita with respect to Applicants' invention.

Accordingly, Claim 1 should now be allowed. Newly added Claims 6-8 should also be allowed, at least in view of their dependency from Claim 1.

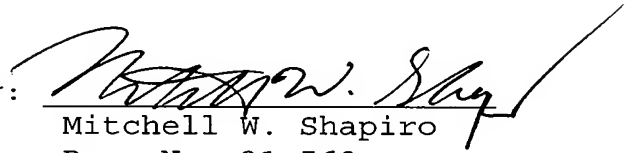
Applicants respectfully request an early Notice of Allowance.

The Commissioner is hereby authorized to charge to Deposit Account No. 50-1165 (XA-10139) any fees under 37 C.F.R. §§ 1.16 and 1.17 that may be required by this paper

and to credit any overpayment to that Account. If any extension of time is required in connection with the filing of this paper and has not been separately requested, such extension is hereby requested.

Respectfully submitted,

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